

## ABSTRACT

A three-dimensional input apparatus for generating data specifying the shape of an object by receiving the light from the object is disclosed. The detection light is irradiated toward the object by a projector so as to scan a virtual surface. An image sensing device detects the light reflected from the object. A controller thins out data and outputs it to the image sensing device in a direction corresponding to the main scanning direction of the virtual surface of the image sensing device. The controller also controls the image sensing device such that the light-receiving signal is repeatedly read on a line along the direction of movement of the received detection light in an effective area constituting a part of the image sensing surface thereby to read the light-receiving signal in the effective area.

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